1   Second, I will discuss Ameritech's OSS proposals to CLECs in this region,

2   including those who plan to provide service to Wisconsin consumers.

3

4   Third, I will discuss the evidence developed to date that demonstrates that

5   Ameritech's systems are not yet operational nor capable of providing

6   commercially reasonable levels of support for competitive local exchange carriers

7   in both the resale and unbundled network element (UNE) environments. My

8   discussion includes not only an evaluation of CLEC testing experiences to date,

9   but a review of the materials and information submitted by Ameritech-Wisconsin

10   in response to Staff's requests. These materials conclusively demonstrate that the

11   interfaces and underlying OSSs have not yet been adequately tested.

12

13   Finally, as to Ameritech's progress toward achieving the objective of offering

14   *non-discriminatory* access to its OSSs, I will explain why Ameritech's proposed

15   reporting requirements fall short of the mark. I will also show how information

16   could be provided by Ameritech to demonstrate the extent to which parity exists.

17   Such measuring mechanisms are not in place at this time.

18

19   **OPERATIONS SUPPORT SYSTEMS**

20

21   Q.   **WHAT ARE "OPERATIONS SUPPORT SYSTEMS" AS THEY ARE**

22   **USED IN THE TELECOMMUNICATIONS INDUSTRY?**

23   A.   Operations support systems, sometimes referred to as OSS, are the computer-

24   based systems and data bases and work processes that operate in combination to

25   deliver important customer-oriented and business support functions. These

26   systems support a variety of carrier interactions with customers, including those

27   related to: ordering services; arranging for changes to service arrangements;

28   maintaining services; inquiring about service availability; and billing. These

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1   systems also provide the information and data used by a carrier's representatives to

2   make the moment-to-moment decisions necessary to respond to customer

3   requests.

4

5   The accuracy, timeliness and completeness of information and functionality

6   provided by OSS are critical to a carrier's efforts to satisfy its customers. As

7   recognized by the FCC in its First Report and Order, without timely and reliable

8   operations support systems, a carrier is effectively prevented from providing

9   quality telecommunication services:

10

11   [I]f competing carriers are unable to perform the functions of pre-
12   ordering, ordering, provisioning, maintenance and repair and
13   billing for network elements and resale services in substantially the
14   same time and manner that an incumbent can for itself, competing
15   carriers will be severely disadvantaged, if not precluded altogether,
16   from fairly competing. Thus providing nondiscriminatory access
17   to these support systems functions, which would include access to
18   the information such systems contain, is vital to creating
19   opportunities for meaningful competition.
20

21   First Report and Order, Implementation of the Local Competition Provisions in

22   the Telecommunications Act of 1996, CC Docket No. 96-98 (released August 8,

23   1996), ¶518.

24

25   Because the reliability of support systems is vital to providing and maintaining

26   service to end-users, the design and operational characteristics for these systems

27   are extremely important. Support systems that fail or operate ineffectively create

28   customer dissatisfaction, and systems that are unreliable in terms of

29   responsiveness or accuracy undermine a carrier's best efforts to ensure customers

30   get the services they request when they request them. Quite simply, a carrier

311

1   cannot conduct its business effectively or efficiently without strong, well-designed

2   and well-developed support capabilities built into its OSSs.

3

4   Most Operations Support Systems, including Ameritech's, include two critical

5   components: interfaces and gateways.

6

7 Q.   FOR PURPOSES OF YOUR TESTIMONY, WHAT DO YOU MEAN BY

8   THE TERM "INTERFACE?"

9 A.   An interface is a pathway that enables access to the information and

10   functionalities that are maintained in Ameritech's systems and databases. An

11   interface can also be a path that is used to deliver information from Ameritech's

12   systems and databases to another system or to a system user, like AT&T. For

13   example, an interface to Ameritech's pre-ordering system would include a menu

14   of services available in a particular location from which an end-user could choose.

15   A pre-ordering transaction that is prepared from the printed menu would then be

16   presented by the end-user to the pre-ordering interface for processing by

17   Ameritech's pre-ordering system. For example, a "Firm Order Confirmation" (or

18   FOC) is an example of an out-bound interface transaction -- it is created as a

19   result of a system action and delivered to a competitive provider system to advise

20   that an order has been received and processed.

21

22   Many interfaces, including those proposed by Ameritech, are fully mechanized or

23   electronic. Electronic interfaces rely entirely on computer and

24   telecommunications technology to transfer information. These interfaces create

25   the opportunity to have computer systems interact directly with each other to

26   quickly and accurately complete transactions, without much need for human

27   involvement or manual intervention.

28

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1   Since interfaces are the critical conduit to underlying systems, it is typical for the

2   interface specifications to be quite detailed. In that way, the parties can ensure

3   that there is common understanding -- on both sides of the interface -- of what

4   each data element and data field means, how they are configured and where

5   standards to be defined by other parties are applied or expected.

6

7 Q. **WHAT DO YOU MEAN BY THE TERM "GATEWAY?"**

8 A.   A gateway is a programmed system that interprets the content of an electronic

9   message and directs the message to a particular data base or processing location,

10   depending on the message content. The gateway then serves as the ongoing

11   electronic interface between the user system and the data base that contains the

12   stored information. In this way, the gateway performs the function of formatting,

13   translating, validating and routing information between CLECs and the incumbent

14   carrier.

15

16   Gateways are also points of access and egress where transactions are subjected to

17   a screening process for a number of possible reasons. For instance, the nature of a

18   user requesting the transaction may need to be validated for permission to make

19   the request; a transaction type may need to be routed based on the content of the

20   transaction; or the sender-system or recipient-system related to the transaction

21   may need to be interpreted or referenced. From the egress perspective, a gateway

22   may serve to route reports to particular departments or to different printers on a

23.   local computer network.

24

25 Q. **ARE THERE ADDITIONAL UNIQUE TERMS OR DESCRIPTIONS**

26   **NECESSARY FOR AN UNDERSTANDING OF AMERITECH'S**

27   **OPERATIONS INTERFACES?**

1   A.   Yes. The telephone industry has recently begun to use terminology that

2   distinguishes the features, functions and business roles of some of the specific

3   support systems. For purposes of understanding Ameritech's offering, five terms

4   are relevant: pre-ordering; ordering; provisioning; repair and maintenance; and

5   billing.

6

7   Pre-ordering refers to activities that support gathering sufficient information from

8   a potential customer about the services required or requested so that the

9   information can be translated into an order for service and placed by the end-

10   user's selected local service provider. Pre-ordering work by a CLEC results in an

11   order for telephone service that involves the wholesaler and the CLEC working

12   together to fulfill the end-user request. The pre-ordering functions included in

13   Ameritech's offering include: access to a customer service record; telephone

14   number selection; due date selection; feature availability and address verification.

15   *See* Ameritech's Response to ICC Staff Data Request JEJ 3-1, attached as

16   Exhibit __12__ (TMC-1).

17

18   Ordering is this second step, following pre-ordering, when the pre-ordering

19   process is successfully accomplished and the service is actually ordered. The

20   ordering functions included in Ameritech's offering include: ordering of resold

21   services and line side ports (including the ability to send changes to orders

22   previously sent); and ordering trunk side UNEs. *See* Ameritech's Response to

23   ICC Staff Data Request JEJ 3-2 , attached as Exhibit __12__ (TMC-1).

24

25   Provisioning are those activities necessary to fulfill the end-user's order. The

26   provisioning functions included in Ameritech's offering include: order

27   confirmation, order jeopardy and order completion -- all designed to allow a

314

1 CLEC to track an order through Ameritech's provisioning system. *See* Ameritech's

2 Response to ICC Staff Data Request JEJ 3-3, attached as

3 Exhibit __13__ (TMC-1).

4

5 <u>Repair and maintenance</u> are the activities that are undertaken to respond to

6 customer-detected problems in the service arrangement. The repair and

7 maintenance functions included in Ameritech's offering include: trouble entry and

8 trouble status. *See* Ameritech's Response to ICC Staff Data Request JEJ 3-5,

9 attached as Exhibit __11__ (TMC-1).

10

11 <u>Billing</u> refers to those activities that involve carriers exchanging information

12 about subscriptions, usage of services, and other records that will ultimately result

13 in sending an end-user an invoice for telephone services. The billing functions

14 included in Ameritech's offering include: daily usage; bill lines and bill trunks.

15 *See* Ameritech's Response to ICC Staff Data Request JEJ 3-4, attached as

16 Exhibit __12__ (TMC-1).

17

18 Q. **UNDER WHAT CIRCUMSTANCES IS IT APPROPRIATE TO**

19 **CONCLUDE THAT OPERATIONS SUPPORT SYSTEMS ARE**

20 **OPERATIONALLY READY?**

21 A. Operational readiness is the end state of a systems development effort. It is

22 achieved when the systems are providing useful, reliable results in accordance with

23 their proposed function and design.

24

25 OSS access is operationally ready when both Ameritech and the CLECs work

26 together satisfactorily to deliver the services which they were designed to deliver.

27 Operational readiness cannot be unilaterally declared by the systems provider.

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1   Rather, both users must work together to establish that all aspects of the support

2   functionality is operationally ready.

3

4   Q.   IS END-TO-END SYSTEMS TESTING CRITICAL FOR ASSESSING

5   OPERATIONAL READINESS?

6   A.   Yes. The establishment of efficient interfaces and procedures for the exchange of

7   information between Ameritech's systems and those at AT&T (or other CLECs) is

8   absolutely essential for the development of competition in the local services market.

9   CLECs entering the local market on a large scale will be highly dependent upon

10   their ability to quickly and accurately obtain local services and unbundled network

11   elements from Ameritech, which in turn will depend on the efficient exchange of

12   information between the two. The efficiency of such an exchange can only be

13   assessed by end-to-end systems testing.

14

15   Moreover, because so much of the information required by competitors resides

16   exclusively in Ameritech's control, Ameritech is in a unique position to control the

17   ability of its competitors to enter the local services market. Thus, unless it can be

18   conclusively demonstrated that Ameritech provides non-discriminatory access to

19   that information -- or access that is equal in quality, in terms of timeliness and

20   accuracy, to that provided by Ameritech to its own representatives -- the OSS cannot

21   be deemed ready to support competitive entry.

22

23   The non-discriminatory access necessary to support large carriers, such as AT&T, is

24   more complex than the needs of small start-up CLECs entering the market on a

25   more limited or narrowly-focused scale. A CLEC that does not expect to ramp up

26   quickly to a sizable customer base can enter a local market without advanced

27   electronic operations support systems. Such CLECs therefore have the flexibility to

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1   enter the market using volume-limited OSS or procedures that may entail substantial

2   manual intervention.

3

4   By contrast, a CLEC like AT&T that is targeting a substantial customer base

5   requires more advanced operations support systems capable of supporting

6   substantial volumes. Further, because AT&T already has extensive existing

7   operations support systems of its own -- with its own business rules and procedures

8   for utilizing those systems -- AT&T must develop systems interfaces that permit its

9   existing systems to communicate and interact with the operations support systems

10   and interfaces of the incumbent LECs.

11

12 Q.   **WHAT ARE THE STEPS TOWARD OPERATIONAL READINESS?**

13 A.   The development of operationally-ready electronic access to operations support

14   systems functionality is an extremely complex and difficult undertaking, which

15   requires not only considerable time, but thorough testing and actual operation to

16   ensure accurate, reliable and timely joint operation of the two systems.[1] The

17   infrastructure on the Ameritech side of the interface is immense, encompassing

18   numerous Ameritech systems and databases which contain information which is

19   necessary to process transactions. AT&T must be able to reliably interact with each

20   of those systems to provide local services.

21

22   A systems development effort requires a number of different steps, including

23   systems analysis, specification refinement, system design, system development,

24   system testing, integration testing, training and implementation. If any of these

---

[1]   One incumbent, US West, has admitted that the development of operationally ready electronic
interfaces between two complementary operations support systems is an "extremely complex" task. *See* US
West Petition for Waiver, Implementation of the Local Competition Provisions in the Telecommunications
Act of 1996, CC Docket No. 96-98 (filed December 11, 1996), p. 4 and attached affidavit of Robert H. Van
Fossen.

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1 steps are skipped or abbreviated, serious problems of order rejection or other

2 misunderstandings between the systems are likely to arise, as has in fact occurred

3 repeatedly in AT&T's efforts to enable its operations support systems to interface

4 with Ameritech's systems.

5

6 Q. PLEASE DESCRIBE THE DIFFERENT STEPS YOU IDENTIFIED

7 ABOVE.

8 A. In the systems analysis phase, the goals are analyzed so the specific processing

9 needs can be laid out in broad measure. Determinations of the business functions

10 that the system must address are made as well as preliminary decisions as to which

11 are to be computerized and which will be manual processes. The analysis of the

12 overall systems and the business needs causes questions to be raised relating to data

13 definitions, the conditions under which information is required or optional, and

14 whether information must be obtained from data bases, supplied by customers,

15 validated or accepted as is. Hundreds of questions regarding data definitions and the

16 ways data are used in the systems are the norm, not the exception. These questions

17 are ordinarily reviewed with the users of the input and output transactions.

18

19 The systems analysis phase is followed by a specification refinement activity. In

20 this activity, the details and definitions of data elements, records and data bases are

21 updated, recognizing that the initial specifications were neither complete nor

22 universally understood. The need for such specification refinement may appear at

23 any stage of the systems development process. The process of specification

24 refinement can take several iterations before the parties find that all questions are

25 resolved and no further definition of the specifications is required. Specifications

26 are only considered "final" when systems built to those specifications are providing

27 useful, reliable results in accordance with their function and design.

28

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1   The next step is the system design phase. The design effort takes into consideration

2   the technical environment for the system, the various regional or local exceptions,

3   the daily/weekly/monthly processing issues to be addressed and more. The system

4   will be broken down into modules that are logical components for computer

5   processing or manual methods and procedures development.

6

7   Once the system is designed, the actual systems development (i.e., programming)

8   efforts are begun. Systems development is where programmers and data base

9   developers get to work coding the modules. The manual activities are also

10 developed which require methods and procedures analysts to work with job or task

11 designers to place the manual activities into logical sequences. These efforts also

12 result in the design of forms, screens and reports. The merging of computerized

13 modules and manual procedures are then followed by testing that is best

14 accomplished through a structured manner and discipline.

15

16 System testing is the step that bears out the design and programming. Testing must

17 separately validate the construction and development of the individual modules, the

18 programs which comprise many modules, the systems that comprise many programs

19 and, on an integrated basis, all of the components, both computerized and manual,

20 under a variety of conditions. System testing serves to demonstrate that the system

21 components perform according to the design of what should happen and to

22 determine capacities or constraints in terms of volumes, seasonal differences,

23 special processing requirements and the like.

24

25 Q.   IS INTERNAL TESTING BY A SYSTEMS PROVIDER SUFFICIENT TO

26   DETERMINE WHETHER THE SYSTEMS ARE OPERATIONALLY

27   READY?

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1 A. No. When systems are developed for the purpose of working with other systems -

2 - which is the case for AT&T's systems and Ameritech's systems -- it is

3 imperative that the two complementary systems be tested by the parties in a joint

4 manner to ensure that they will communicate properly with each other. This is

5 referred to as end-to-end or full "integration testing." Integration testing is the

6 only effective way to test the adequacy of a systems interface. This phase is the

7 opportunity for the entire spectrum of systems interactions to be tested without

8 adversely affecting actual customers in the marketplace.

9

10 Internal testing simply cannot achieve this important goal. *See* ICC Staff Jennings

11 Supp. Reb., ICC Staff Ex. 4.02., p. 2 ("Just because Ameritech has completed

12 internal testing of its various OSS, there is no assurance that other carriers will be

13 able to effectively utilize the OSS in a commercially feasible manner.") (attached

14 as Exhibit __13__ (TMC-2)).

15

16 Full integration testing, on the other hand, enables the parties to identify problems or

17 inadequacies in the systems or interface design or the interface specifications. Even

18 minor changes may result in significant rework of systems that will need to be tested

19 again. Indeed, it was the Wisconsin Commission and Staff's concerns regarding the

20 adequacy of testing that caused the parties to specifically focus on how testing

21 relates directly to usability and reliability.

22

23 Testing must then be followed by the development of methods and procedures

24 materials and the training of personnel to be certain that staff know how to operate

25 the system, to interact with the screens, forms, etc. Once these steps have all been

26 completed, the system can be implemented. Only when the implementation phase

27 has been successfully completed can it properly be said that the systems are

28 operationally ready.

320

1

2   Q.   IN YOUR EFFORTS TO ANALYZE ACCESS TO AMERITECH'S

3   OPERATIONS SUPPORT SYSTEM FUNCTIONALITY, WHAT

4   DOCUMENTATION DID YOU REVIEW AND WHEN DID YOUR

5   REVIEWS TAKE PLACE?

6   A.   I began my analysis activities in October 1996 in Chicago, where I examined

7   Ameritech's published Interface Specifications for the interfaces to the Ameritech

8   systems. I also spent considerable time in Ameritech's Discovery Room at their

9   Chicago offices, reviewing the OSS-related binders, documents, brochures,

10   handbooks and a videotape made available by Ameritech therein. As Ameritech

11   made additional material available through the end of 1996 and into 1997, I

12   reviewed that material as well, including materials containing printouts and

13   correspondence relative to testing of some of the interfaces with CLECs other

14   than AT&T.

15

16   I was also given access to relevant correspondence files of AT&T managers

17   employed in Chicago that contained letters, attachments, reports, meeting agendas

18   and minutes and presentation materials such as view-graphs and spread sheets

19   pertaining to OSS matters that were issued or received by AT&T. I was also able

20   to spend considerable time reviewing and evaluating Ameritech testimony and

21   exhibits as they have been filed and tried in proceedings in Michigan, Illinois,

22   Ohio and Wisconsin. Ameritech also provided information on several occasions

23   to the FCC that was also made available to me by AT&T's Chicago, New Jersey

24   and Washington, DC staffs.

25

26   Last, but certainly not least, I spent considerable time closely examining the

27   testing that AT&T had been executing with Ameritech during the Illinois Service

28   Readiness Trial and in the Michigan Market Readiness Trial. In many cases, the

1   testing inputs, outputs, reports, statistics, error details, completion details, daily

2   reports and weekly reports that I reviewed were prepared by Ameritech for AT&T.

3

4   **AMERITECH'S PROPOSED OPERATIONS SUPPORT SYSTEMS**

5   **INTERFACES**

6

7   Q.   WHAT ARE YOUR FINDINGS AS TO THE OPERATIONAL

8   READINESS OF THE AMERITECH OSS INTERFACES?

9   A.   Given the present status of Ameritech's OSS interfaces, new entrants are many

10   months from being able to effectively compete with Ameritech in the local

11   market. I base this opinion on the limited capabilities of Ameritech's current

12   support systems and interfaces as well as the amount of work that will be

13   necessary to move these systems and interfaces to a state of operational readiness.

14

15   As I noted above, operational readiness must be a declaration by users on both

16   sides -- not just the Ameritech side -- that the systems are working together

17   consistently and predictably through the interfaces. It is impossible to attain

18   operational readiness without thorough and well documented testing of the

19   systems as they interact on both sides of the interfaces. Once they are

20   satisfactorily tested as to functionality, the systems can be subjected to tests under

21   market condition volumes to demonstrate operational readiness with regard to

22   parity and capacity concerns.

23

24   Q.   WHAT DETERMINATIONS DO YOU RELY ON IN CONCLUDING

25   THAT THE SYSTEMS ARE NOT OPERATIONALLY READY?

26   A.   My concerns about the current status of Ameritech's systems fall into the

27   following categories:

28

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1 (1) the interface specifications have not sufficiently stabilized;

2 (2) the systems have not been subjected to adequate integration testing;

3 (3) the testing that has been completed demonstrates that Ameritech is relying

4   heavily on systems and operating procedures that are not reliable; and

5 (4) there is no evidence that Ameritech's offering will provide access

6   on a non-discriminatory basis.

7

8 Each will be discussed in turn.

9

10 <u>INTERFACE SPECIFICATIONS</u>

11

12 Q. **HOW ARE AMERITECH'S PROPOSED OPERATIONS SUPPORT**

13 **SYSTEMS INTERFACES DESIGNED?**

14 A. Ameritech is providing nine separate OSS interfaces, each supporting a different

15 function or combination of functions. These will be a pre-ordering transactional

16 interface (EDI), a pre-ordering batch interface (file transfer), a transactional

17 ordering interface (EDI), a batch ordering interface (ASR), a provisioning

18 interface, a maintenance and repair interface (T1M1), a usage billing information

19 interface (EMR), a resale billing information interface (AEBS), and a UNE billing

20 information interface (CABS). Each of these are in different stages of definition

21 and completeness.

22

23 Obviously, no CLEC can hope to finalize its "side of the interface" until the

24 specifications and detailed design components of each of the interfaces are

25 finalized by Ameritech. But Ameritech has been moving the target for the

26 ordering and pre-ordering interfaces since these were initially published in April

27 1996, making numerous changes to the interface specifications. While I am not

28 critical of Ameritech for its continuous revision and enhancement to its interfaces,

1   many of these changes have required AT&T and its systems vendors to make

2   corresponding changes to the AT&T "side of the interface".

3

4   The paces of the changes and the lack of coordination of changes are creating

5   additional weaknesses in the interfaces. For instance, surprise system changes to

6   the wholesale billing interface in late 1996 prevented AT&T from receiving

7   accurate (i.e., balanced) and payable wholesale bills from Ameritech in January

8   and February (and most likely in March). Ameritech has agreed to a financial

9   arrangement, but has yet to correct the underlying problem. Moreover, Ameritech

10   will not commit to a pre-announced system and interface change process that

11   would enable AT&T to reasonably implement complementary changes or be

12   aware of the nature of changes to initiate "due diligence" evaluations of the

13   Ameritech implementation. A more orderly process of introducing changes to the

14   interfaces and underlying systems is explained later in this testimony.

15

16   Most work to date as been focused on the pre-ordering and ordering interfaces.

17   As Ameritech and its competitors continue to test, evaluate and rely on the other

18   interfaces and supporting systems, they will most likely be similarly subjected to

19   revisions and enhancements.

20

21 Q.   HOW SHOULD AMERITECH NOTIFY ITS CLEC USERS OF CHANGES

22   NEEDED TO THE INTERFACES AND TO THE UNDERLYING

23.   SYSTEMS THAT INTERACT WITH THE CLEC SYSTEMS?

24 A.   Once the first generation of interfaces and support systems for effective local

25   competition are stabilized, planned changes should be forwarded to CLEC users

26   in written form on a scheduled basis, optimally no more than once per year, but

27   certainly on an as-needed basis according to the magnitude of the proposed

28   innovation or change. Major software releases that will impact the OSS interfaces

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1   should be announced six-to-twelve months in advance; new products available for

2   resale by CLECs should be announced six-to-nine months prior to announcement

3   to the retail markets; new or revised business rules that would require CLEC

4   adaptation of systems and procedures should also carry a six-to-nine month

5   notification period; and, new manual processes that would facilitate processing of

6   transactions through the OSS interfaces should be announced three-to-six months

7   ahead of time. Emergency corrections or fixes need to be dealt with on an

8   expedited, but well-managed, basis to ensure that implementing the correction is

9   not worse than the problem it is solving.

10

11   The ILEC/CLEC team effort needs to recognize the importance of pre-

12   notification, thorough development of system requirements, interface and system

13   specifications, testing requirements and planning and the implementation phase of

14   each change. Timetables like those I mention above would provide opportunities

15   for innovations to be suggested by CLECs and Ameritech in a cooperative

16   manner. As industry standards are modified by the responsible organizations such

17   as the Ordering and Billing Forum, the parties can take advantage of these

18   improvements on an orderly basis.

19

20 Q.   **HAS AMERITECH PROPOSED INTERFACE SPECIFICATIONS FOR**

21   **THE ORDERING AND PROVISIONING OF UNBUNDLED NETWORK**

22   **ELEMENTS?**

23 A.   No. Discussions to date between AT&T and Ameritech have centered largely

24   around the interfaces to be used for resale services. The discussions related to the

25   purchase of unbundled network elements, and more importantly, combinations of

26   unbundled network elements (the platform) have been only extremely preliminary

27   in nature. In large part this is because AT&T and Ameritech cannot agree on how

28   the platform will be provisioned operationally (although the Michigan

1   Commission recently issued an Order adopting AT&T's position on the manner in

2   which this element must be made available). The parties' disagreement on this

3   issue has made it very difficult to have meaningful discussions about how the

4   ordering interfaces should be designed.

5

6   At minimum, it would appear that ordering the standard combination would

7   require the use of two separate interfaces -- the ASR interface and the EDI

8   interface. But it is still unknown how that ordering process will flow. Because

9   the ASR format was designed for support of access services and has traditionally

10   been used only in the access service arena, the ASR form limits the types of

11   unbundled elements that can be ordered. Moreover, it is not clear how two orders

12   submitted separately would be processed to provide service to a single customer.

13   Notably, neither Warren Mickens nor Joseph Rogers, Ameritech's OSS experts,

14   was able to explain at the Ohio proceedings how AT&T would order the standard

15   UNE combination Ameritech is allegedly making available to AT&T through

16   various Interconnection Agreements.

17

18

19   **AMERITECH/AT&T SERVICE AND MARKET READINESS TESTING**

20

21   Q.   DOES THE TESTING PERFORMED TO DATE BY AMERITECH AND

22   AT&T SUPPORT THE CONCLUSION THAT THE SYSTEMS AND

23   INTERFACES ARE WORKING TOGETHER SUFFICIENTLY TO

24   SUPPORT LOCAL COMPETITION?

25   A.   No. Extensive work has been done by Ameritech and AT&T for trials involving

26   customer accounts in Illinois and Michigan. The results of this testing indicate

27   that there remain many unresolved problems and much additional evaluation is

28   necessary. Most troubling, the test records indicate that many of the undetected

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1   problems would, in all likelihood, have had deleterious effects on competition and

2   have resulted in poor customer service if the testing had, in fact, been actual

3   service orders. The test results convincingly demonstrate that AT&T cannot

4   currently rely on Ameritech's systems for large-scale market entry using resale or

5   entry in the UNE environment.

6

7 Q.   **PLEASE DESCRIBE THE RESULTS OF THE ILLINOIS SERVICE**

8   **READINESS TESTING.**

9 A.   AT&T has been conducting service readiness testing of Ameritech's interfaces for

10   the Illinois market since October 6, 1996. Because the interfaces on which

11   Ameritech-Wisconsin will rely are region-wide interfaces[2], the results of this

12   other-region testing is relevant to the inquiry to be conducted by this Commission.

13   As the results below demonstrate, the Illinois testing alone raises substantial

14   questions about the readiness of Ameritech's systems.

15

16   First, the local service resale orders provided by AT&T to Ameritech for

17   processing were rejected at a rate of 42%, and 54% percent of the total orders

18   processed required manual intervention, review or processing. More specifically,

19   in the over four months of testing in Illinois from October 6 to February 14, a total

20   of 328[3] AT&T orders for service resale were processed by Ameritech. Of those

---

[2]   Ameritech witness have stated that the interfaces are region-wide, testifying that there are no differences in the interfaces from State to State. Nonetheless, while the interfaces appear to be regional, there are operational and network differences in each State that can create added and unanticipated problems. For instance, when AT&T began conducting testing in Michigan, many of its orders were rejected because only 70% of the exchanges in Michigan had been programmed for intraLATA presubscription. Thus, orders with a PIC selection that were accepted in Illinois were rejected in Michigan.

[3]   The information used to report testing results in this testimony is taken from Ameritech testing reports. The actual number of "transactions" processed and the status of any single transaction at any particular time can be recorded in a variety of ways. For purposes of consistency and convenience, I have adopted Ameritech's methodology for reporting test results.

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1   orders, only 181 (or 56 percent), were completed. Roughly half of the AT&T orders

2   (142) were rejected by Ameritech's systems. The results of the testing are as

3   follows:

4

		Percentage
Total Order Transactions Processed	328	
Orders Rejected	142	42%
Orders Completed	181	55%
Orders Pending	5	3%
Orders Processed Manually	178	54%
Rejected	47	25%
Completed	126	68%
Pending	5	7%
Orders Processed Automatically	150	46%
Rejected	95	67%
Completed	55	33%
Pending	0	

5

6   These results alone demonstrate that the Ameritech's systems are far from being

7   operationally ready. No carrier could possibly begin commercial service to

8   customers with these results. The Illinois Service Readiness Testing Results are

9   attached as Exhibit __14__ (TMC-5).

10

11   Q.   **DO THE TESTING RESULTS REFLECT TESTING PROBLEMS AND**

12   **THEIR RESOLUTION?**

328

1   A.   Yes. I have attached to my testimony a copy of the Ameritech/AT&T Illinois

2   Significant Events/Open Issues Tracking document, dated March 14, 1997,

3   Exhibit __15__ (TMC-6). This document, which was prepared by Ameritech and

4   is shared on a periodic basis with AT&T, serves as the basis for assignment to

5   AT&T or Ameritech staff of investigations as to the cause of errors and need to

6   make corrections to procedures. A "significant event" arises when conditions that

7   give rise to the cause of processing problems are unknown and require research,

8   either by Ameritech or by AT&T, or where certain activities are yet to be

9   completed that will change the ways the transactions will be processed. To close

10   one of these issues, Ameritech or AT&T or both must implement some change to

11   its systems, interfaces or operating procedures.

12

13   The report indicates that 62 "significant events" have arisen in the testing of

14   Ameritech's resale ordering interface since October 10, 1996. As of March 14,

15   there were still 22 "open" items -- some of them several months old. It has

16   sometimes taken weeks or even months to close an item, during which time

17   ordering interactions had to be suspended or worked around to continue the

18   testing.

19

20   Q.   DID THE TESTING RAISE ANY ADDITIONAL CONCERNS?

21   A.   Yes. A further serious concern for AT&T revealed during the testing of the resale

22   ordering interface is the fact that many of AT&T's orders were not processed

23   electronically (despite being delivered to Ameritech electronically), but instead

24   were dumped from the designed processing stream and subjected to manual

25   processing by Ameritech. Of the 328 test orders processed, 54 percent were

26   processed by Ameritech using some manual procedures, and of the 181 orders that

27   were completed, 70 percent involved manual intervention.

28

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1   Moreover, contrary to Ameritech's claims, this high incidence of manual

2   processing cannot be explained away by the content or complexity of the orders

3   that AT&T submitted to Ameritech, for those orders were not unusual or

4   complex. Many of them were simple migration orders. AT&T anticipates that the

5   degree of manual intervention will only increase as AT&T attempts to resell more

6   complex types of telecommunications services.

7

8   Q.   WHY IS AT&T CONCERNED ABOUT THE DEGREE TO WHICH

9   AMERITECH RELIES ON MANUAL INTERVENTION?

10   A.   Ameritech's heavy reliance on manual processing is troublesome and unacceptable

11   as a basis for actual market entry. My professional experience is, and

12   Ameritech's OSS experts, Warren Mickens and Joseph Rogers, have agreed, that

13   manual processes are incapable of handling large volumes of transactions and are

14   likely to stress Ameritech's ability to deliver timely and efficient services.

15   Manual procedures may also yield inconsistent results, increase the likelihood for

16   delays in processing and create errors that would otherwise be avoidable.

17

18   Moreover, it has been difficult to assess the full impact or magnitude of this

19   problem because Ameritech has been so reticent to provide AT&T with a list of

20   the support activities which are being done on a manual basis and the reasons why

21   orders cannot be processed electronically. Indeed, Ameritech has utterly refused

22   to provide AT&T with information about the circumstances that produce these

23   results. AT&T personnel involved in testing have asked repeatedly for

24   explanations of what gives rise to the requirement for manual processing. To

25   date, Ameritech has refused to provide the requested information, including

26   information necessary to reduce this manual intervention on a systematic basis.

27   At a hearing on these issues in Ohio, Warren Mickens, one of Ameritech's OSS

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1   experts, flatly refused to share this type of information with CLECs, testifying that

2   they had no need to know.

3

4   At that same hearing, Joseph Rogers, another Ameritech OSS expert, reluctantly

5   agreed to provide information to AT&T regarding the circumstances under which

6   AT&T orders fall to manual procedures. However, Ameritech subsequently

7   refused to provide this information, characterizing Mr. Rogers' sworn testimony as

8   "thoughts" he shared on an "efficient approach" to "enhancing" Ameritech's

9   ordering system and concluding that Ameritech resources would not be best spent

10   on explaining manual processing to AT&T. The AT&T/Ameritech letters

11   relevant to this problem are attached as group Exhibit ___16__ (TMC-7).

12

13   In yet another attempt to secure this information, AT&T requested an opportunity

14   to depose Mr. Rogers to explore this and other areas in which Ameritech has

15   made only limited information available (including the results of CLEC testing

16   that Ameritech alleges has taken place). Ameritech again refused to cooperate --

17   arguing that no matters remained to be addressed that has not already been

18   explored. *See* March 11 letter from Michael Paulson to Joan Marsh, attached as

19   Exhibit __17__ (TMC-8). Subsequent to this letter, a deposition has been

20   scheduled.

21

22 Q.   **UNDER WHAT CONDITIONS WOULD AMERITECH PRIORITIZE**

23   **PROCESSING OF AMERITECH SERVICE ORDERS AHEAD OF CLEC**

24   **SERVICE ORDERS?**

25 A.   While AT&T has not been generally informed of the reasons causing AT&T

26   orders to be manually processed, AT&T has obtained information suggesting at

27   least one way in which manual processing will produce discriminatory results.

28   Ameritech has advised AT&T that manual intervention of AT&T resale orders

1   will occur whenever an AT&T resale service order contains information in the

2   "Remarks" section. In Ameritech's definition of its use of Remarks ("RMKS")

3   for its Universal Service Order, the Remarks section is provided so that carriers

4   may include "additional instructions needed to supplement information in the

5   various sections of the order." (Ameritech Pocket USOC and FID Book, January

6   1996, p. 59). It is AT&T's understanding that the only way it can "supplement

7   information in the various sections of the order" is to use "Remarks" in the same

8   manner as does Ameritech for its own retail service orders.

9

10   The manner in which Ameritech receives electronic CLEC resale orders from the

11   ordering interface is to first process them through the "MOR Tel Order Server."

12   *See* Ameritech Submission to the FCC on OSS, p. 13 , attached as Exhibit _22_

13   (TMC-13). In those cases where the MOR Tel Order Server detects Remarks in

14   the CLEC order, it "kicks out" the order for manual review. This manual step

15   consumes time and prevents the continued systematic and uninterrupted flow of

16   the CLEC resale order into the Ameritech Service Ordering Processor.

17

18   After being manually reviewed, the CLEC orders are either re-entered into the

19   electronic processing stream, rejected to the CLEC or are processed manually into

20   the Ameritech Service Ordering Processor. Ameritech service orders are not

21   processed through the MOR Tel Order Server. Ameritech service orders

22   containing "Remarks" are processed directly into the Ameritech Service Ordering

23   Processor. Reviews of Ameritech's Remarks, if any, are performed by service

24   center, installation or dispatching staff -- well ahead of an AT&T order that

25   contained Remarks and was therefore stopped for manual examination.

26

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1   Q.   **WILL THE DIFFERENCES IN PROCESSING RESULT IN ANY**

2   **SERVICE-AFFECTING DISPARITIES?**

3   A.   Yes. An Ameritech service order to connect telephone service that is issued at the

4   same time as an AT&T service order to connect resold service -- for the same

5   service in the same geographical area where both contain the same supplemental

6   information (i.e., remarks) -- will be processed into the Service Ordering

7   Processor materially ahead of the AT&T service order. Thus the Ameritech

8   service order lays claim to installation labor (the limiting factor in arranging for

9   installation) ahead of the AT&T order.

10

11   If the Ameritech order was associated with a given day's last installation resource,

12   the AT&T order would not be provisioned on the same day as the Ameritech

13   order. The Ameritech order and the AT&T order would have different due dates

14   in this case -- the AT&T order would be due for completion on the date when

15   installation resources were available but the Ameritech customer would have

16   service one complete day earlier than the AT&T customer. Ameritech would also

17   earn one additional day's revenue than would AT&T.

18

19   Q.   **WHAT ARE YOUR CONCERNS REGARDING THE STATUS OF**

20   **TESTING THE REPAIR AND MAINTENANCE INTERFACE?**

21   A   Ameritech has explained its processes related to receiving and acting on CLEC

22   requests for repair and maintenance through the T1M1 interface. Ameritech

23   advises that its repair and maintenance interface (T1M1 specification) is currently

24   in use by MCI and AT&T and other carriers for repair and maintenance processes

25   related to access services. But a close examination of this claim reveals that there

26   are significant differences between the repair and maintenance of access services

27   and those for local services.

28

1   Access services have been purchased from Ameritech by a relatively small

2   number of customers, primarily interexchange carriers that use the access services

3   to interconnect between Ameritech and their facilities. The T1M1 interface

4   obviously works for the limited number of access service customers -- many of

5   which are sophisticated corporations with technical expertise sufficient to interact

6   with T1M1 to report trouble conditions, initiate trouble tickets, follow-up on the

7   status of repair activities and ultimately to close the trouble ticket in connection

8   with Ameritech's trained technical staffs. To insist that because T1M1 works for

9   access service, it can readily handle repair and maintenance interface requirements

10   for local services, is a leap of faith that only adequate testing can bear out.

11

12   AT&T has recently agreed to work with Ameritech in Illinois to validate how

13   T1M1 would work, or not work, in the local services market that AT&T

14   envisions. This would be a market with several times the number of customers

15   that could experience trouble contrasted with the number of access services

16   customers served by Ameritech. These resale and unbundled network element

17   end users would contact AT&T on a far more frequent basis and with less

18   accurate or reliable information as to trouble conditions and detailed descriptions

19   of what is wrong with their service, and would likely bring significantly greater

20   volumes of trouble tickets through the T1M1 interface than its current capabilities

21   can immediately handle.

22

23 Q. DO YOU HAVE ADDITIONAL CONCERNS REGARDING THE REPAIR

24   AND MAINTENANCE INTERFACE?

25 A. Yes. AT&T's local service customers who experience dial tone problems or

26   "noise" on their lines would be expected to contact AT&T representatives to

27   report these problems. Obviously, the types of problems and the nature of